NGB PAMPHLET 385-95

Safety

ARMY NATIONAL GUARD (ARNG) AVIATION ACCIDENT PREVENTION PLAN

DEPARTMENTS OF THE ARMY AND THE AIR FORCE
NATIONAL GUARD BUREAU
WASHINGTON D C 20310

Foreword

This pamphlet provides a basic source of information to assist individuals at all echelons in carrying out their responsibilities for implementing the ARNG Aviation Safety Program and thereby contributing to the combat effectiveness of the Army.

The objectives of the ARNG Aviation Safety Program are to prevent injury, loss of life, and damage to property resulting from accidents. Such accident prevention can be achieved by identifying and eliminating hazardous procedures, operations, and conditions; guarding against or controlling hazards which cannot be eliminated; establishing safe practices consistent with military operations; and motivating and training individuals to perform safely.

Safety must be considered in relation to the Army's mission -- success in combat. A good aviation soldier is instilled with a vital sense of daring and boldness which is based on confidence in the reliability of his/her equipment and the soundness of decisions to be carried out. Boldness and daring do not include the taking of needless risks. Needless risks often result in needless accidents, and these accidents tend to undermine an individual's confidence and the Army's combat potential.

High-quality research and development have produced equipment designed to operate efficiently and safely under varying conditions; effective supervision will ensure that it is properly used and maintained; and adequate education and training of all individuals will result in safe performance in its use.

Director
Army National Guard

Headquarters
Department of the Army
Washington, DC 20310-2500
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NGB Pam 385-95

Safety

ARMY NATIONAL GUARD (ARNG) AVIATION ACCIDENT PREVENTION PLAN

Summary. This pamphlet establishes the ARNG aviation accident prevention plan as outlined in AR 385-95.

Applicability. This pamphlet applies to the ARNG.

Impact on New Manning System. This pamphlet does not contain information that affects the New Manning System.

Interim changes. Interim changes are not official unless authenticated by the Executive, NGB. Interim changes will be destroyed on their expiration dates unless sooner superseded or rescinded.

Suggested improvements. Users are invited to send comments or suggested changes on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to NGB-AVN-SA, Bldg E6810, APG, MD 21010-5420.

Contents

Chapter 1
General

1-1. Purpose
This pamphlet formally establishes the aviation accident prevention plan within the ARNG. The plan outlines personnel responsibilities, and provides implementation instructions, goals, and methods the ARNG will use to monitor the success of the overall aviation safety program. It will also aid in accomplishing missions without accidental loss of personnel or equipment. Users of this plan will not waive any safety requirements set by Army regulations, higher headquarters, or this plan, except when the need arises due to an actual emergency or combat situation. If a deviation of an established safety procedure or directive occurs because of an actual emergency or combat situation, the individuals involved will furnish appropriate authority a complete report of the incident as soon as possible after the event.

1-2. Scope
This plan is applicable to all aviation operations within or supported by the ARNG.

1-3. Aviation safety philosophy
a. Accident prevention in ARNG aviation is based on the philosophy that all accidents can be prevented and that accident prevention is an inherent function of leadership. Designating aircraft accident prevention as a leadership function does not release any individual concerned with the maintenance and operation of aircraft from the responsibility of striving for the greatest possible degree of safety. The commander, aviator, crewmember, and mechanic must be so aware of accident prevention principles that safety awareness becomes an integral part of everyday thinking.

b. Mission accomplishment with minimum risk is the main thrust of the program. A successful accident prevention program is a by-product of command supervision. Effective command supervision includes attention to proper procedures in sufficient detail to prevent the occurrence of accidents. Nothing in the planning stage of a military mission can be left to chance, nor can proper performance on the part of personnel be assumed. There are few, if any, aircraft accidents within the ARNG resulting from new or exotic causes. A successful aviation accident prevention program can be accomplished through proper supervision, training, and job performance.

c. Most aviation accidents can be linked to individuals performing tasks beyond their proficiency level and a tendency toward complacency during routine operations. Training programs must be realistic, meaningful, and used to identify and expand the capabilities of each individual and unit. At the same time, training must be conducted in a safety conscious environment in which all participants think safety, follow prescribed procedures, are alert to potential unsafe acts, and operate within their own and their equipment's capability.

d. Any member who knowingly violates regulations or established safety procedures can anticipate prompt disciplinary actions.

1-4. Explanation of terms and abbreviations
Terms and abbreviations used in this pamphlet are explained in AR/NGR 95-1.

1-5. Duties and responsibilities
a. Chief, NGB is responsible for the overall supervision of the ARNG Safety and Occupational Health Program and for coordinating with other HQDA staff agencies and the State adjutants general on matters pertaining to accident prevention and occupational illness.

b. Director, ARNG serves as the reviewing authority for Classes A and B aircraft accidents as outlined in AR 385-40. He/she is responsible for:

(1) Ensuring that adequate resources are allocated to support an effective ARNG Safety Program.

(2) Providing for a continuous and comprehensive accident prevention effort that is compatible with the mission of the ARNG.

c. Deputy Director, ARNG serves as the chairperson of the ARNG Executive Safety and Health Advisory Council Committee, and in that capacity ensures that the ARNG Directorate focuses on safety and health matters within the ARNG.

d. Chief, Aviation Division (NGB-AVN) has the staff responsibility for supervising the ARNG Safety and Occupational Health Program.

e. Aviation Operations Branch (NGB-AVN-O) is responsible for monitoring ARNG aviation operations to ensure that policy, concepts, requirements, and organization support safe standards and practices.

f. Aviation Logistics Branch (NGB-AVN-L) is responsible for safe aviation maintenance, supply, and quality control/assurance programs.

g. ARNG Safety Branch (NGB-AVN-S) is responsible for recommending and implementing an effective ARNG Safety and Occupational Health Program including aviation safety and the Occupational Safety and Health Act of 1970.

(1) Aviation Safety Team is responsible to perform the following:

(a) Establish, coordinate, and field an aviation safety program to provide accident prevention countermeasures for all aviation operations.

(b) Coordinate with facility and unit safety officers to ensure maximum cooperation in matters of mutual concern pertaining to aviation safety.

(c) Provide dedicated safety training to ARNG AGR, technician, and M-day safety officers.

(d) Monitor the program for career development of ARNG aviation safety officers.

(e) Review all directives and regulations to ensure that adequate provisions for safety and safe physical standards are incorporated.

(f) Review accident experience trends and provide an analysis to appropriate agencies/organizations.

(g) Conduct safety surveys to review operating and training procedures to initiate the action necessary to eliminate inherent or accident-producing hazards.

(2) General Safety Team is responsible to perform the following:

(a) Establish and implement an effective ARNG Safety and Occupational Health Program.

(b) Provide safety services adequate to the express needs of the various States.

(c) Assemble, analyze, summarize, and disseminate data concerning the accident experience as pertains to ground operations.

h. The Adjutant General is responsible for the following:

(1) Establishing an ARNG aviation accident prevention plan within the State.

(2) Complying with statutory and regulatory requirements pertaining to aircraft operations.

i. The State aviation officer serves as the focal point for aviation safety program management at State level and is responsible to the Adjutant General for implementing and supervising the ARNG aviation accident prevention plan. He/she is responsible for coordinating aviation safety matters among NGB, State staff, aviation facilities, units, and sections.

j. AASF/AAFA/AAOF/AVCRAD commanders are responsible for:

(1) Supervising aviation operations, aircraft maintenance, standardization, and the AFTP portion of the ATP not conducted under ADT or IDT status.

(2) Advising and assisting commanders concerning the use of ARNG aircraft and their responsibilities for aviation safety.

(3) Conducting a continuous vigorous effort toward preventing accidents and occupational illness in operations and activities.

(4) Ensuring that aircraft are operated and maintained IAW established safety practices.

(5) Complying with NGR 385-5.

(6) Ensuring that each AFTP has a designated supervisor who is responsible for mission, safety, and weather briefings.

k. The IP/ASO, ASO, and flight safety technician are responsible for the following:

(1) Assisting and advising the facility/unit commander on all matters pertaining to safety, air, and ground.

(2) All matters pertaining to safety in the local SOP.

(3) Monitoring policies, standards, and procedures to assure integration of the accident prevention principles.

(4) Maintaining files and records of aircraft mishaps and aviation safety data.

(5) Conducting accident prevention surveys, maintaining files of such surveys, and making positive corrections or recommendations for corrections of discrepancies noted.

(6) Coordinating with operations, maintenance, and training sections to ensure that aviation safety practices are integrated in all aviation and ground activities.

(7) Maintaining safety bulletin boards.

(8) Monitoring the facility/unit pre-accident plan.

(9) Coordinating with other safety officers throughout the State on matters of aviation safety.

(10) Conducting, as a minimum, quarterly safety meetings.

(11) Monitoring aviation training activities to ensure that accident prevention principles and procedures are adhered to.

(12) Conducting follow-up actions on recommendations submitted by the Accident Investigation Board, Aviation Safety Council, aviation safety meetings, operational hazard reports, and safety surveys.

l. The aviation maintenance officer ensures that:

(1) Maintenance training is provided to all maintenance personnel.

(2) Shop areas are surveyed for safety hazards.

(3) Safety equipment is available and used.

(4) ASO/FST is advised of accidents.

(5) Maintenance practices are standardized and conducted by the book.

(6) The cannibalization program is established IAW appropriate directives.

(7) Appropriate maintenance personnel participate in facility/unit safety councils.

m. The unit operations officer will:

(1) Review flight records and the unit training program to ensure that training is directed toward known deficiencies.

(2) Develop a positive plan that ensures mission and aircraft assignments are within crew capabilities. Brief commander on the mission schedule.

(3) Ensure that the pilot's reading file is maintained IAW AR 95-1.

(4) Cause sound flight principles and procedures to be followed for all operations regardless of mission urgency.

(5) Require that adequate and timely weather reports are provided to aircrews during field exercises.

(6) Ensure aircraft mission briefings are comprehensive and complete for all missions.

(7) Monitor crew rest and flight limitations of air crewmembers IAW the unit crew rest policy.

(8) Monitor medical status of all assigned air crewmembers. Inform the commander immediately of any change in crewmember flight status.

(9) Include the aviation safety officer in the planning stage for all field and training exercises.

(10) Advise the ASO/FST of training/standardization problems affecting safety-of-flight.

n. The aviation safety NCO assists, advises, and makes recommendations to the ASO on aviation accident prevention matters. His/her responsibilities are as follows:

(1) Maintain liaison with the command sergeant major, first sergeants, and other enlisted personnel on all aviation safety matters.

(2) Observe aircraft support activities (such as POL, maintenance, operations, and enlisted crewmember training) to detect and report unsafe practices or procedures.

(3) Participate as a member in the enlisted safety council.

(4) Maintain liaison between the enlisted safety council and safety council.

(5) Post reference files of aviation safety literature. Make sure files are current and complete.

(6) Take part in unit safety surveys.

o. The unit commander will:

(1) Ensure (by inquiry, discussion, command emphasis, and interest) that unit personnel know and support the aviation accident prevention plan.

(2) Establish a safety council and attend council meetings.

(3) Attend safety briefings.

(4) Request quotas for safety schools conducted by the U.S. Government and contractors; send qualified personnel to attend these courses; and place school-trained safety personnel in appropriate positions.

p. State aviation safety officer (SASO)/battalion aviation safety officer (BNASO) will:

(1) Assist in establishing and implementing basic policies, plans, and procedures for establishing, supervising, and directing a functional State aviation safety program; and for reporting accidents, accident experience, and progress of safety activities as required.

(2) Advise and coordinate with the State safety officer on all matters pertaining to the State aviation safety program.

(3) Coordinate the State aviation safety program with all elements of the State staff.

(4) Arrange for procurement and selective use of aviation safety posters, films, and other safety educational and promotional publications and materials.

(5) Supervise and direct specific State aviation safety training as required.

(6) Serve as a member of the State safety council.

(7) Ensure that safety surveys are conducted.

(8) Review and forward aviation accident reports IAW AR 385-40, as appropriate.

q. The ALSE technician will:

(1) Establish a library of ALSE publications and ensure that the unit's pinpoint distribution account is updated to include ALSE publications and necessary forms.

(2) Ensure that all ALSE is maintained in a high state of readiness through inspecting, cleaning, fitting, testing, adjusting, and repairing.

(3) Maintain files on inspection, maintenance, expiration dates, and supply pertaining to ALSE.

(4) Participate as enlisted representatives at aviation safety meetings and conferences.

(5) Participate in local ALSE steering council meetings.

(6) Inspect all controlled drugs used in survival kits and vests.

r. Pilots-in-command (PICs) will:

(1) Brief crew and passengers IAW FM 1-400 and appropriate TMs/local directives.

(2) Ensure that ALSE commensurate with the mission and the operational environment is available on the aircraft and that air crewmembers and passengers are briefed on its location and use.

s. The flight surgeon will:

(1) Maintain liaison within the command to implement the aviation medicine program.

(2) Take part in and observe flight operations to monitor the interactions of crewmembers, aircraft, and environment.

(3) Serve as a member of aircraft accident investigation boards.

(4) Serve as a member of flight evaluation boards.

(5) Ensure that the medical portion of the pre-accident plan is adequate.

(6) Monitor the physical and mental well-being of aviation personnel, including drug or alcohol abuse.

(7) Ensure air crewmembers are aware of self-medication restrictions.

(8) Monitor the survival and physiological training of aviation crewmembers.

(9) Medically clear crewmembers for further flight duty after aircraft accidents.

(10) Make recommendations to improve the human factors compatibility, crash-worthiness, and survival features of aircraft determined from aircraft accident investigations or from observations made when performing other aeromedical functions.

(11) Take part in aviation safety meetings to educate aviation crewmembers on the aeromedical aspects of flight.

(12) Monitor the fitting, use, and serviceability of ALSE equipment.

(13) Assist in and advise on hearing and eyesight conservation programs.

t. The aviator will:

(1) Attain and maintain proficiency in assigned aircraft.

(2) Maintain physical and mental fitness.

(3) Comply with sound flight principles and safe practices during all flight operations regardless of mission urgency.

(4) Report hazards and unsafe conditions or acts to the proper authority.

(5) Inform flight surgeon of activities/medical treatment for which flying restrictions may be appropriate (AR 40-8).

(6) Make on-the-spot corrections of unsafe conditions when appropriate.

u. Maintenance personnel will:

(1) Perform maintenance tasks IAW appropriate maintenance/technical manuals.

(2) Wear appropriate personnel protective equipment to prevent personal injury.

(3) Comply with safety practices IAW unit/facility SOP and directives.

(4) Report material/publication deficiencies through QDR, EIR, or DA Form 2028 as appropriate.

v. Supervisors, platoon leaders, section leaders, and individuals will:

(1) Correct all known safety deficiencies on the spot.

(2) Report all unsafe conditions to the unit/facility ASO/FST when on-the-spot corrections cannot be made.

(3) Ensure all individuals receive continuous supervised safety training in job activities.

(4) Report all damage to aircraft, ground support equipment, and personnel injuries immediately.

(5) Read and comply with unit/facility SOP.

w. The Multi-Media Group has the following responsibilities:

(1) Coordinate with NGB-AVN-S and the aviation safety officers/safety specialists of the several States in developing, acquiring, producing, and distributing safety promotional and educational materials.

(2) Coordinate with other DOD and Federal agencies as required to acquire and distribute safety promotional and educational materials that will enhance the ARNG Aviation Safety Program.

(3) Provide guidance and assistance to the aviation safety officers/safety specialists of the several States in managing their State safety promotional and educational programs.

(4) Provide a direct communications link between the State through the ARNG Multi-Media Group to avoid duplication of effort and cost effective development of safety promotional and educational materials.

Chapter 2
Accident Prevention

2-1. Aviation accident prevention survey

a. Purpose of survey. The aircraft accident prevention survey is an effective means of evaluating the condition of an aviation organization's safety program. As a minimum, surveys will be made semiannually. Personnel conducting the survey will be thoroughly familiar with staff procedures so that recommendations may be directed to the proper agencies. Follow-up checks will be made to ensure that recommendations on previous surveys were implemented; new potential problem areas have not developed since the last survey; and potential problem areas overlooked before, or considered relatively unimportant at the time, might be reexamined in view of more current information. The survey is merely a question and answer checklist that can serve as a guide for commanders, supervisors, and their staff to increase awareness of potential problem areas within the command. Considering this, the survey will provide a foundation on which to build an effective aviation accident prevention program.

b. Publications used for surveys. "Guide to Aviation Resources Management for Aircraft Accident Prevention," NGR 385-5, and FORSCOM 14-1-R, ARMS are publications that contain comprehensive checklists to assist in conducting aircraft accident prevention surveys.

c. Evaluating surveys. After a safety survey has been completed, it must be evaluated to identify areas that need improvement. The aviation safety council will convene to discuss information obtained from the safety survey. This will provide a basis for the following:

(1) List of hazardous conditions. Emphasis will be placed on eliminating hazards. Factual and objective presentation of this information to the council will encourage cooperation from all members. To help the council set priorities, the ASO should analyze hazards to assess their risk potential in terms of hazard severity and accident probability (AR 385-10).

(2) Safety council meetings. The minutes, sent to each council member, will contain the items discussed and the member assigned primary responsibility for each item. At each meeting, the minutes of the prior meeting will be read. The council member assigned a task should report progress and give estimated completion dates. These items will be reviewed at each meeting.

(3) Analysis of hazards. Commanders and supervisors will ensure that procedures (AR 385-10) are analyzed to identify and control hazards in aviation systems, facilities, and operations. The use of early detection versus post-accident techniques will be emphasized.

(4) Countermeasures and priorities. The most potentially effective countermeasures and available resources must be applied against "worst first" hazards. In evaluating and ranking hazard priorities, potential consequences must be considered. These are probable degrees of injury, occupational illness, damage, mission, and legal and statutory implications.

2-2. Aviation safety councils

a. Army aviation safety councils at unit level and higher will be established as a part of the aviation accident prevention effort. The safety council will meet at least once each quarter. Members of the safety council will include but are not limited to:

(1) unit/facility commander
(2) unit/facility aviation safety officer/FST
(3) operations officer
(4) maintenance officer
(5) unit/facility IPs/SIPs
(6) platoon leaders
(7) first sergeant
(8) flight surgeon
(9) aviation safety NCO
(10) participation by selected personnel in grades E-5 and below, such as maintenance specialist, mechanics, and crewmembers.

b. The general duties of an aviation safety council are to:

(1) Promote accident prevention at unit and higher levels through the exchange of ideas, discussions, and reports of flight hazards or deficiencies noted. Resolve all problems by command action. Problems that cannot be resolved at the level discovered will be passed to the next higher command for corrective action.

(2) Monitor and review the aircraft accident prevention program (AR 385-95).

c. As appropriate, particularly in large aviation organizations, an enlisted aviation safety council should be formed to integrate all members of the unit into the aircraft mishap prevention program, and to capitalize on the great amount of experience found among the enlisted ranks. The council is authorized by AR 385-95.

d. Units below the size of company or troop may combine unit and enlisted councils to form a consolidated safety council.

e. Safety matters discussed during the safety council meeting should be presented to unit/facility members during safety meetings.

2-3. Aviation safety meetings

Aviation safety meetings will be held at least once quarterly for all aviation personnel. The IP/ASO and unit ASO, as appropriate, are responsible for the agenda and conduct of the meetings. Aviation safety briefings should be conducted during each MUTA and frequently during annual training. Meetings should be held in an informal atmosphere including open discussions making best use of guest speakers, films, and aircraft accident reviews. The subject of each meeting should be proactive and timely and lend to differences of opinion significant to the accident prevention program effort. Whenever possible, organization members should be asked to actively participate in the actual presentation.

2-4. Aviation mishap prevention bulletin board

Aviation mishap prevention bulletin boards should be established in all aviation units/facilities. Bulletin boards will be located in areas where flight crews and mechanics will see them daily. Information placed on these boards will be current, interesting, beneficial to aviation personnel, directly related to aviation safety and aircraft mishap prevention, and will be neatly displayed. Whenever possible, two bulletin boards will be used, one in or near the flight operations office for aviators, and the other in the maintenance area for mechanics. Information posted in the effort to prevent mishaps is limited only by the ingenuity and initiative of the person maintaining the bulletin board. A safety poster is one of the best methods for relaying short safety messages to personnel. A prominently displayed poster has a greater and longer lasting impact than a written message. Posters should be replaced often, but should be retained for future use. If a poster emphasizing a specific idea cannot be obtained, one should be constructed.

2-5. Monthly mishap prevention themes

a. The monthly aircraft mishap prevention theme is a means for scheduling pertinent and timely subjects for development and discussion. Themes based on cause factors in recent mishaps are recommended. The theme selected should be stressed during that month and should be discussed, publicized, and posted on aviation bulletin boards. Examples of appropriate themes are:

(1) Terrain flight crew coordination.

(2) Terrain flight night operations.

(3) Habit interference-transition from UH-1 to OH-58.

(4) Inattention, in-flight management procedures.

(5) Copilot duties.

(6) PIC duties.

(7) Violation of established procedures.

(8) Alcohol/drug abuse.

b. To enhance the monthly accident prevention themes, topics should be supplemented with narratives of accidents based on actual occurrences.

2-6. Aviation medicine program

a. The aviation medicine program objectives are to promote aviation safety and prevent illness and injury of Army aviators and aviation support personnel. Specific aims are to promote the health and safety of aviation personnel through appropriate preventive medicine practices; assure a safe, toxic-free environment for aviation personnel; and evaluate personal equipment and the man/machine interface for toxic and hazardous conditions.

b. Unit commanders and commanders of medical activities authorized a flight surgeon (PS161N9A, 61N9B, 61N9C, 61N9D) will ensure adequate time and support are available for flight surgeons to accomplish the program objectives. The Army Surgeon General will initiate policies, prepare directives, and provide technical advice as required to assist in program fulfillment. Flight surgeons will establish an aviation medicine program tailored to specific needs of supported aviation populations.

c. The Army aviation medicine program includes but is not limited to periodic and special flight physical examinations; routine aviation personnel medical care; a general preventive medicine program for all aviation personnel; active support of the aviation safety program through presentations at safety meetings and participation in mishap investigations (AR 40-21); medical representation on flying evaluation boards; hospital and installation aeromedical activities supervision or coordination as appropriate; and supervision of issue, fitting, and use of personnel life support and safety equipment. The flight surgeon should also assist in developing flight limits and crew rest standards and in completing human factors mishap report.

2-7. Safety literature

Each aviation unit/facility will maintain a library of all available aviation safety literature. The library will include aircraft operator's manuals and training circulars for qualification, training,

and standardization applicable to each type of aircraft assigned. This material will be available in unit operations or in areas frequented by aviation personnel.

2-8. Accident reporting and investigation

ARNG aircraft accidents will be classified, investigated, and reported IAW AR 385-40 by the U.S. Army Safety Center (USASC). For each accident, the USASC will provide board members as deemed appropriate. Where feasible, the president of the board will be an Army guardsmember. In addition, the responsible local commander should be prepared to provide as board members a maintenance officer, flight surgeon, and IP/SIP in the type of aircraft involved.

a. When an accident occurs, the responsible command will:

(1) Collect the information required in AR 385-40, figure 5-1. (This information is desired for the initial notification, but it is not to delay the notification.)

(2) Immediately notify the USASC Operations Center by telephoning AUTOVON 558-4273/2660; commercial (205) 255-4273/2660.

(3) Notify NGB by telephone when a class A or class B aircraft accident occurs. During duty hours, telephone NGB-AVN-S, AUTOVON 584-4727; commercial (301) 671-4727. After duty hours, telephone the NGB duty officer, AUTOVON 225-6987; commercial (202) 695-6987. If no answer, telephone the Army Operations Center, AUTOVON 227-0218; commercial (202) 697-0218.

(4) Appoint an aviation safety officer to serve as Point of Contact for the board and provide support outlined in AR 385-95 and AR 385-40 to include all required preliminary actions before arrival of USASC investigators.

(5) Publish orders of an investigation board, to include those members from USASC, IAW AR 385-40.

(6) Make arrangements for administrative support; for example, office space, AUTOVON telephone, site passes, photographer, and essential typing support.

(7) Ensure wreckage remains undisturbed, if possible.

b. The commander of an activity incurring an Army mishap or accident is responsible for initiating actions for a collateral investigation IAW AR 385-40, paragraphs 1-7 and 5-8. As a minimum, Army activities will conduct a collateral investigation when a ground accident or aircraft mishap results in one or more of the following:

(1) Fatality.

(2) Probable litigation against the Government or Government contractor when Army interests or possible liability may be involved.

(3) Suspected negligence or violation of safety standards or procedures. For example; an aviator attempts to start a helicopter with the main rotor blade tied to the tail boom; the rotor turns and causes damage to the tail boom. Since this is clearly a violation of written procedures (-10 operator's manual, -10 CL, and AR 95-1), the commander is required to initiate actions for a collateral investigation. The procedures to be followed in conducting a collateral investigation are set forth in AR 385-95 and AR 15-6. Additionally, these regulations provide specific guidance on board composition, report format, and content of the report.

2-9. ARNG Safety and Occupational Health Program

ARNG policy is to maintain and promote the individual guardsmember's health and well-being by protecting individuals from undesirable health effects that may result from exposure, inadequate controls, operations and handling of equipment, processes, hazardous/toxic materials, products, and wastes. The various procedures and guidance for planning, organizing, coordinating, and controlling the implementation of the safety and health program is contained in NGR 385-10.

Chapter 3
Operational Considerations

3-1. Mission planning
All missions will be planned IAW the unit SOP, AR/NGR 95-1, and all applicable publications. All personnel involved in a specific operation, regardless of the nature of the operation, will be thoroughly briefed on all aspects of the operation. The commander or his/her representative will monitor mission briefings.

3-2. Mission scheduling
All approved missions will be scheduled by the operations officer, or his/her representative. The operations officer will ensure that the aircraft/equipment and personnel chosen for the mission are capable of safely and efficiently accomplishing the mission.

3-3. Crew selection
The operations officer or his/her representative will select crewmembers on a mission-by-mission basis. He/she will ensure that the crew selected for a given mission is the best qualified and current in the tasks required in accomplishing the mission. The ASO will monitor crew selection and ensure that all safety factors, such as crew rest, are considered in the selection process.

3-4. Aircraft selection
The maintenance officer will review the mission schedule and provide the number of aircraft that are capable of performing a specific mission to the operations officer. Assigned crews will ensure that the assigned aircraft is capable of performing the mission. Discrepancies will be immediately reported to the maintenance officer and to the operations officer.

3-5. Weather
IAW AR 95-1, no aviator will take off without a proper weather briefing. No aviator will take off if the weather does not meet the criteria in the unit SOP and/or AR 95-1. The operations officer is responsible for providing current weather to air crewmembers, and will monitor flight plans and PICs to ensure current weather information has been obtained.

3-6. Pilot-in-command (PIC) program
A PIC program will be in effect within all aviation organizations of the ARNG. States will tailor PIC programs IAW appropriate regulations to promote standardization of selection criteria and to ensure continuous monitoring at all levels.

3-7. Crew rest
Commanders and supervisors will ensure a crew rest program is in effect IAW AR/NGR 95-1. The recommended guidelines in AR 95-1, table 4-1, may be used to assist the commander in designating this program. The ultimate crew rest responsibility lies with the individual crewmember.

3-8. Tactical operations
Tactical operations will be conducted IAW unit tactical SOP, regulations, and appropriate publications. Special considerations must be given to crew selection for tactical operations.

3-9. Passenger and troop carrying operations
The PIC will ensure that all passengers are properly briefed IAW AR/NGR 95-1, applicable operator's manual, and unit SOP. The operations officer or his/her representative will assure that the troops are briefed prior to a tactical troop movement. Coordination between the supported unit and operations will be necessary to accomplish a thorough troop briefing.

3-10. Night operations
Night operations will include night, unaided night, and night vision goggle (NVG) operations. The unit and facility commanders will ensure adequate support and training time are provided in each of these areas. NGB has the responsibility to assist State adjutants general in acquiring and maintaining adequate night training facilities. State Army aviation officers will have the responsibility to ensure adequate training facilities are available within the State.

3-11. Instructor pilot (IP) selection
The IP selection process is the responsibility of the commander. He/she will ensure that aviators selected to perform IP/SIP/IFE/UT duties meet minimum qualification/experience criteria established in AR 95-1. The ongoing proficiency and effectiveness of all IPs will be continuously monitored by the State Standardization Board.

3-12. Pre-accident plan
A current pre-accident plan will be established and maintained IAW AR 385-95. The operations officer is responsible for the development of the pre-accident plan in support of unit/facility/tactical needs. The plan will be coordinated with

all activities having similar or related functions. The pre-accident plan crash alarm system should be prepared IAW AR 385-95, appendix B, table B-1. The primary crash alarm net will be tested daily, the overall plan tested semiannually, and the tactical plan tested the first day of annual/field training exercises.

3-13. Special aviation operations
Commanders will ensure that appropriate regulations, publications, and SOPs are adhered to or developed to plan for contingencies that may arise.

3-14. Operational Hazard Reports (OHRs)
Reporting hazards is a vital means of reducing mishaps. Unfortunately, many hazards which increase unit aircraft exposure are unreported due to complacency of both aviators and supervisors. The OHR (DA Form 2696-R) is one of the avenues available to individuals for making such reports. OHRs will be submitted to the ASO or airfield operations officer and will be thoroughly investigated by the ASO. Appropriate recommendations will be submitted to the commander. When corrective action cannot be taken at unit level, the report will be forwarded through channels to the command level at which corrective action can be taken. Detailed instructions on the OHR are in AR 385-95. OHR forms will be conspicuously placed for the use of all personnel. They may be anonymously submitted.

3-15. Ground vehicle operations
All vehicles will be maintained, checked daily, and operated IAW current applicable regulations. Drivers should be properly selected, trained, tested, and licensed for each vehicle they are to operate. The driver is the final authority on whether or not a vehicle is safe to operate. All safety equipment provided (i.e., fire extinguishers, etc.) will be inspected and operational prior to vehicle operation. The supervisor of vehicle dispatch will ensure that the driver assigned to a vehicle is fully qualified to operate that vehicle and has a current military driver's license. All convoy operations will have an officer or NCO in charge and assistant drivers assigned; all participating personnel will receive a thorough mission and safety briefing prior to initiating the operation. Restraint systems will be used at all times when the vehicle is in motion, if vehicle is so equipped. Posted speed limits or designated maximums for specific vehicles will be observed at all times. Ground guides will be utilized as necessary for all operations in close quarters or when danger to personnel exist.

Chapter 4
Maintenance Considerations

4-1. Quality deficiency report/equipment improvement recommendation system

a. The purpose of submission of quality deficiency reports (QDR) and equipment improvement recommendations (EIR) is to initiate early and effective corrective action. DA Pam 738-751 provides guidance for submitting QDR/EIR. Electronic message or SF 368 is the authorized means for users of Army materiel to report equipment failures, to suggest improvements in Army materiel, or to report unsatisfactory new equipment.

b. To ensure expeditious handling of EIRs, priorities for submission are:

(1) Category I report: A deficiency which will, or may, affect life or limb of personnel or impair the combat capabilities of the using organization or individual. Deficiencies that affect operational capability to the extent that mission accomplishment is jeopardized fall within this definition and is submitted in message format.

(2) Category II report: A deficiency which does not meet the criteria set forth in Category I.

c. Conditions for submission of QDRs/EIRs include but are not limited to:

(1) A condition or materiel fault constituting a hazard to personnel, equipment, or mission.

(2) Design which affects proper durability or operational characteristics.

(3) Conditions resulting from substandard workmanship during manufacture, modification, repair, or overhaul.

(4) Component or equipment deterioration due to climatic conditions.

(5) Errors arising from inadequate data in technical publications which may cause a hazard or constitute a safety of flight condition.

4-2. Tear down analysis program

The tear down analysis program is an important part of an effective aircraft mishap prevention program. Too frequently, this program is limited to aircraft parts suspected of contributing only to aircraft mishaps. Unit maintenance officers often fail to submit components or parts which are suspected of contributing to forced or precautionary landings for tear down analysis. It is imperative that units submit parts involved in classes D and E mishaps for tear down analysis. An active analytical program can identify materiel failures and component design faults which might cause a class A, B, or C mishap. Once the problem has been analyzed, corrective action can be taken. A lack of unit participation will have a damaging effect on the overall aircraft mishap prevention program of the Army. DA Pam 385-95 outlines the procedures involved in selecting and submitting aircraft components and parts for tear down analysis.

4-3. Army oil analysis program

The Army oil analysis program is a coordinated Army-wide effort to detect impending equipment component failure through analytical evaluation of oil samples. The policy, objectives, and responsibilities for conducting the program are outlined in AR 750-43. Complete information and instructions on use of the program are found in TB 43-0106. The Army oil analysis program is applicable to commands, units, installations, and activities which operate Army aircraft. All oil lubricated systems of the aircraft are monitored. Participation in the program is mandatory.

4-4. FOD prevention program

The objectives of an FOD prevention program are to find and correct potential hazards and to eliminate the causes of FOD. Training, designing, investigating, disciplining, and motivating are key factors of a sound program and provide a better understanding of FOD causes and costs. A good FOD prevention program can enhance combat readiness by saving materiel, manpower, and money. Therefore, FOD prevention must be an essential part of each aviation accident prevention program.

a. Each aviation organization will appoint an FOD control officer on orders. The FOD officer will:

(1) Develop and maintain an FOD control SOP IAW AR 385-95, appendix C.

(2) Conduct weekly FOD inspections.

(3) Visit in-progress maintenance, checking for FOD control compliance.

(4) Provide unit safety officer, maintenance officer, and commander copies of FOD inspections.

b. The maintenance officer should establish an SOP on cleanliness and good housekeeping practices in hangars and shop tool control. The tool control plan should include provisions for the following:

(1) General mechanic tool set security.

(2) Issue, turn-in, storage, and security for special tools.

(3) Tool control spot checks.

4-5. DA Form 2028 (Recommended Changes to Publications and Blank Forms)

The commander will supervise the DA Form 2028 program. Blank forms will be placed in the maintenance office, operations, and break areas. All DA Forms 2028 will be submitted through command channels. Provisions should be made for follow-up action no later than 30 days after original submission if a reply has not been received.

4-6. POL operations

Fuel handling personnel and air crewmembers must understand the proper procedures for the use and disposition of POL products as outlined in FMs 10-68, 10-69, and 10-71. The following should be accomplished by the unit/facility:

a. Formulate a training program for fuel handlers, established along the guidelines set forth in FMs 10-68, 10-69, and 10-71.

b. Ensure that POL section personnel receive fuel handling, FARE, and tank vehicle operator training.

c. Ensure that semiannual POL handling classes for crewmembers are conducted. These classes should cover, as a minimum, the following topics:

(1) Climatic conditions and their effects on fuel handling operations.

(2) Bonding and grounding procedures.

(3) Emergency procedures for fuel spills and fire during hot and cold refueling operations.

(4) Proper utilization and disposition of oils and lubricants.

4-7. ALSE program

An effective ALSE program coupled with realistic survival training of the ARNG aircrews are essential to enhance the operational combat readiness of our aviation units.

a. Each aviation organization should appoint an ALSE officer as an additional duty. The aviation safety officer should not be tasked with this duty. The ALSE officer's duties include:

(1) Maintaining close liaison with commander and aviation officer in all matters pertaining to ALSE to include budgeting requirements.

(2) Ensuring that qualified (trained) personnel maintain and inspect all ALSE.

(3) Ensuring that aviation personnel are equipped with serviceable clothing, survival vests, and survival kits appropriate to their respective clothing allowance zone as defined in CTA 50-900. Survival radios and test equipment are required, and are authorized by organization's MTOE/TDA.

(4) Participating in semiannual weather briefings required by FORSCOM regulation 350-3, emphasizing the climatic changes impacting on individual survival and survival equipment needs.

(5) Maintaining ready reference files of ALSE literature.

(6) Making recommendations to improve ALSE as determined from observations or an actual survival situation.

(7) Ensuring survival training is conducted annually.

b. For all ARNG rotary wing and OV-1 flights, each crewmember will wear a survival vest. At least one operable survival radio will be worn by one crewmember. If available, an operable survival radio for each crewmember will be carried in their survival vests. As a minimum, one individual survival kit, authorized crewmembers by CTA 50-900, will be on board the aircraft. A survival kit per crewmember is desirable.

Chapter 5
Education, Promotion, and Awards

5-1. Education

Education and training are the means for developing safe behavior among individuals. Education is the process of teaching discretion in the performance of a job, operation, or activity. Operational accidents, those which occur in the performance of duties, can be reduced by additional training and closer supervision. It is assumed that the individual receives training that is adequate for the satisfactory performance of assigned duties. Consequently, personnel who have safety responsibilities should be concerned with the educational aspects of the safety program. There are three aspects of safety education and training: (1) the development of positive safety attitudes, (2) imparting the knowledge necessary for safe performance of various jobs, (3) the development of skill to the level necessary for safe performance. The third aspect, skill development, is accomplished through training. The other two aspects fall in the realm of education. The education of all ARNG military and technician personnel in safe work practices is essential to efficient management. Particular emphasis should be placed on formally educating the safety cadre within ARNG aviation units and facilities.

a. Resident aviation safety and occupational health courses for selected ARNG personnel are conducted by various military, Government, and civilian educational institutions. These courses are designed to provide students with knowledge in safety management, accident prevention, and occupational safety and health. Courses are announced in the 385- and 351- series of Army and ARNG publications, NGB All States Letters, electronic messages, and other publications and bulletins.

b. Nonresident safety and occupational health courses are offered by Government agencies and civilian institutions. These courses are designed to furnish basic accident prevention techniques and procedures to aviation safety officers and occupational health personnel. These courses are listed in appropriate catalogs and publications.

c. Special safety training may be periodically conducted by the ARNG safety office at the Professional Education Center, AR; Eastern Army Aviation Training Site, PA; and the Western Army Aviation Training Site, AZ. These courses are designed for ARNG aviation safety personnel in areas where specific knowledge is required and is not available through other agencies. Courses will be announced by electronic messages.

5-2. Promotion

Helping individuals accept new safety precautions and deal with hazards is the challenge of safety communication. Mass communication represents the most economical means of exposing the greatest number of individuals to the greatest number of safety awareness messages.

a. All of the various types of safety media - posters, bulletins, videotapes, films, and recall symbols - are instrumental in achieving a high level of safety awareness. To be useful, safety communication should conform to the following communication principles.

(1) The message must be specific.

(2) The message must be informative.

(3) The message must be pertinent.

(4) The message must be reinforced by personal influence.

(5) Fear and threat appeals should be avoided.

(6) The same message should not be presented too long.

b. The Multi-Media Branch will provide assistance in the development, acquisition, production, and distribution of safety, promotional, and educational materials. Direct communications between State safety personnel and the ARNG Multi-Media Branch is authorized and encouraged.

c. Many excellent promotional materials are listed in DA Pam 108-1. Published materials such as the Army Aviation Digest, Flight Fax, Countermeasure, and NGB safety newsletters and aviation messages are excellent sources for promotional material. The use of printed and visual materials for sources outside the Army is recommended and encouraged.

5-3. Safety awards program

a. HQDA and the ARNG recognizes outstanding effort and achievement in the prevention of accidents. All States will be cognizant of their subordinate commands, activities, and individuals when significant contributions are made to the efficiency, economy, or improvement of ARNG operations through accident prevention. Awards will be made to individuals and units on the basis of their total safety record. Commanders may use the checklist provided in AR 385-10, appendix B, as a guide in determining award qualifications.

b. The ARNG of the several States, Puerto Rico, the Virgin Islands, Guam, and the District of Columbia and individuals of the ARNG are eligible for DA

awards (AR 672-74 is applicable). For award purposes, the ARNG is equated with major Army commands, and the ARNG of individual States, Puerto Rico, the Virgin Islands, Guam, and the District of Columbia are equated with Army divisions. Adjutants general may nominate their respective State for DA safety awards. Nominations will be submitted to NGB-AVN-S for review and forwarding.

c. Army Aviation Accident Prevention Unit Awards are presented by HQDA to recognize aviation units and individual aviators for significant aviation accident prevention achievements as indicated in AR 672-74. ARNG units and facilities meeting the criteria outlined in AR 672-74 may be nominated for these awards by the next higher headquarters. That headquarters should certify the activity nominated is continuing to pursue an active and effective accident prevention program. Nominations will be forwarded through the appropriate State safety officer to NGB-AVN-S, who will forward nominations to Commander, USASC.

d. The Broken Wing Aviation Safety Award is presented by HQDA to individuals who have demonstrated the highest degree of professional aviation skill while actually recovering an aircraft from an in-flight failure or malfunction necessitating an emergency landing. AR 672-74, section IV, is applicable to all ARNG military and DA civilian personnel including students authorized to pilot or serve as air crewmembers of Army aircraft. Nominations will be submitted IAW AR 672-74.

e. To recognize outstanding efforts in aviation accident prevention, the Chief, National Guard Bureau has established the ARNG Distinguished Aviation Safety Award (NGR 385-10). This award will be presented to a State that has completed 5 consecutive years or 40,000 flying hours without a class A or B aircraft accident beginning 1 October 1977. State's adjutants general will nominate their respective State for this award by letter to ARNG OAC, ATTN: NGB-AVN-S, Building E6810, APG, MD 21010-6520. Nominations must be received by 30 June and include the time frames or hours flown.

f. State adjutants general will establish safety awards programs. These programs will provide for recognizing significant achievement in preventing accidents within all elements and by individuals under their command or operational control. States may use locally procured awards.

By Order of the Secretary of the Army:

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